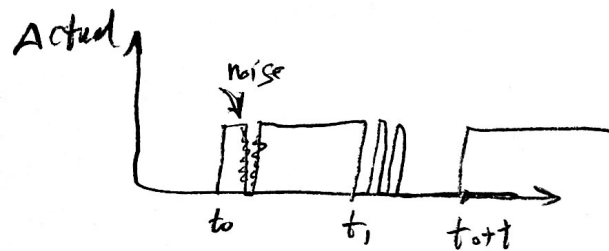
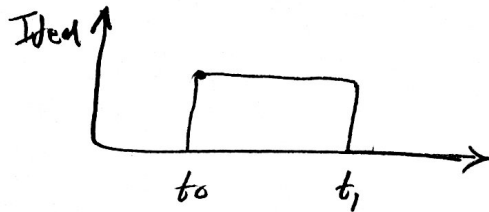


Bouncing / De bouncing Problem

Switch dynamics



Solution

1- Software

ignore delay and neglect any change for period of time

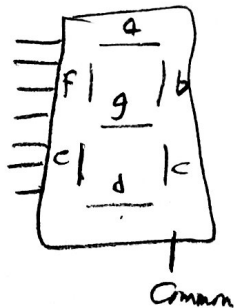
2- Hardware

Using Capacitor as ~~an~~ Low Pass Filter

Interface - Seven Segment

Common Anode

Common Cathode



Input: 2 push button

Output: 7-segment

Program

SW1	SW2	
0	0	Turn off Seven-Segment
0	1	Count up
1	0	Count down
1	1	Turn on all Led

Port = Function(n) ^{number}

main: Loop based on switches

Byte → data type for port